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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/607,985      | 06/30/2003  | Seong Eun Heo        | 9988.036.00-US      | 6979             |

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01/18/2005

MCKENNA LONG & ALDRIDGE LLP

Song K. Jung

1900 K Street, N.W.

Washington, DC 20006

EXAMINER

BRINSON, PATRICK F

ART UNIT

PAPER NUMBER

3754

DATE MAILED: 01/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/607,985

Applicant(s)

HEO ET AL.

Examiner

Patrick F. Brinson

Art Unit

3754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/2/04</u> . | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 6-8, 11-14, 16-19, 22, 24-27, 30-32, 35, 37 and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 1,201,981 to **Tamborini et al.**

The **Tamborini et al.** reference discloses a drain hose for an appliance, fig. 1, comprising a first cylindrical end portion (7), comprising a first bellows (6), being connectable to a water outlet, a second cylindrical end portion (2) portion comprising a bellows (3) that is able to form a permanent bend when a temporary bending force is applied thereto, and a flexible corrugated portion (4) connection between the first cylindrical end portion and the second end portion, as recited in claims 1, 11 and 12. The hose also includes a third bellows (4) that is able to permanently expand or retract when a first temporary force pulling or pressing is applied. The first flexible portion being located between the first end portion and the third bellows and the second flexible corrugated portion located between the third bellows and the second end portion, as recited in claim 25. The permanent bend is a bend of 180 or 90

degree arc, as recited in claims 2, 22 and 35. Col. 2, lines 51-55 discloses an elastic connection member integrally molded to the first and second cylindrical end portions, being sealably connectable to the water outlet and drain pipe, respectively.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4, 9, 15, 20, 28, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Tamborini** in view of U.S. 4,852,564 to **Sheridan et al.**

The **Tamborini et al.** reference does not disclose the first and second cylindrical ends comprising at least one annular ring externally formed thereon to prevent the molded connection member from disengaging from the end.

The patent to **Sheridan et al.** discloses a corrugated flexible tube, fig. 7, having ends (17 and 18a). The end (18a) includes an annular ring (42) onto which molded connection member (24a) is locked, thus preventing disengagement. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide to the ends of the flexible tube of **Tamborini**

**et al.** an external ring, as suggested by **Sheridan** in order to provide a means of locking the member onto the end of the cylindrical end portion.

5. Claims 5, 23, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Tamborini et al** in view of US 5,507,319 to **Kanao**.

The patent to **Tamboini et al.** does disclose the bellows of the ends having a plurality of folds forming the permanent bends, but does not disclose the plurality of folds comprising an inclined wall extending from a left lower point to a middle peak point and a declined wall extending from the middle peak point to a right lower point, with the angle formed between the inclined wall and a vertical axis passing through the middle point being greater than the second angle formed between the vertical axis and the declined wall. The patent to **Kanao** discloses a synthetic resin bellows pipe utilized as a drain pipe for an appliance such as a washing machine, having locking bellows, fig. 2A, comprising an inclined wall (2) extending from a left lower point to a middle peak point (4) and a declined wall (3) extending from the middle peak point to a right lower point, with the angle formed ( $\alpha$ ) between the inclined wall and a vertical axis (1) passing through the middle point being greater than the second angle ( $\beta$ ) formed between the vertical axis and the declined wall. It would be obvious to one having ordinary skill in the art at the time the invention was

made to modify the folds of the bellows of **Tamboini et al.** to have an angle of one side of the fold to be greater than the angle of the other side of the fold, as suggested by **Kanao** wherein it is known that this type of bellows construction may be used to provide a stable position of the flexible tube.

6. Claims 10, 21, 29 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Tamborini et al.** in view of US 5,311,753 to **Kanao**.

**Tamboini et al.** does not disclose the elastic connection member integrally molded to a portion of the permanently bent bellows. The patent to **Kanao** does disclose a connection member integrally molded to the bellows and being sealingly connected to the drain pipe and water outlet. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the **Tamboini et al.** hose to form the connection member integrally with the bellows as suggested by **Kanao** in order to alternatively connect the hose to the water outlet or drain pipe, wherein providing the connecting member to the bellows or to a cylindrical portion extending from the bellows will equally function to connect the hose to the washing machine and/or the water outlet.

### ***Conclusion***


7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to Diebolt et al., Bryan et al., Fried, Fukui et al.,

Sheridan et al. '690 and God are all pertinent to Applicant's invention in disclosing flexible corrugated piping having bends that are capable of being permanent until moved.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Patrick F. Brinson** whose telephone number is (571) 272-4897. The examiner can normally be reached on M-F 7:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Michael Y. Mar** can be reached on (571) 272-4906. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Patrick F. Brinson  
Primary Examiner  
Art Unit 3754

Application/Control Number: 10/607,985  
Art Unit: 3754

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P. F. Brinson  
January 12, 2005